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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,361	07/18/2003	Arthur T. Nemirow	BII 0113 PUS	5050

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EXAMINER

VU, JIMMY T

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

5m

Office Action Summary	Application No. 10/623,361	Applicant(s) ARTHUR T. NEMIROW ET AL	
	Examiner Jimmy T. Vu	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,7 and 9-11 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/18/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Despite applicant's disagreement, the examiner decides to provide new rejection as below. Other references have been incorporated to strengthen the examiner's position with respect to the fluorescent lamp electronic ballast having the combination of features including the power factor correction flyback circuit and the inverter ballast circuit.

Information Disclosure Statement

1. The references listed on the information disclosure statement submitted on 07/18/2003 have been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Gu (U.S. Patent number 5,907,223).

Regarding claim 1, Gu discloses a fluorescent lamp electronic ballast comprising:
a power factor correction flyback circuit (50) composed of a rectifier (56) connected to a DC to DC flyback converter (72), the flyback converter including a flyback transformer (T) connected to a diode/capacitor combination (D3-D6, C3 and C4), the flyback converter including a switch (Q3, Q4) used to switch the flyback transformer during operation to produce a flyback waveform that is rectified by the diode and results in a DC output at the capacitor (Figs. 3, 4 and 8-10; col. 4, lines 40-67; col. 5, lines 10-20); and

an inverter ballast circuit (62) receiving the DC output and converting the DC output to an AC signal for operating the fluorescent lamp (Figs. 3, 4 and 8-10; col. 4, lines 40-67; col. 5, lines 10-20).

Regarding claim 2, Gu discloses the fluorescent lamp electronic ballast wherein the rectifier receives an AC input having a varying frequency and the rectifier has a sufficiently low input capacitance such that the rectifier output substantially takes the form of a rectified AC wave (Figs. 9 and 10).

Regarding claim 3, Gu discloses the fluorescent lamp electronic ballast wherein the flyback converter is configured to operate in a transition mode (Figs. 1-10).

Regarding claim 4, Gu discloses the fluorescent lamp electronic ballast wherein the flyback converter includes a control loop (B) configured to monitor the flyback transformer and switch the flyback transformer asynchronously as needed to maintain energy balance (Figs. 4 and 8-10).

Regarding claim 5, Gu discloses the fluorescent lamp electronic ballast wherein the control loop is connected to the DC output (DC) (Figs. 3 and 10).

Regarding claim 8, Gu discloses a fluorescent lamp electronic ballast comprising:
a power factor correction flyback circuit (50) composed of a rectifier (56) connected to a DC to DC flyback converter (72), the flyback converter including a flyback transformer (T) connected to a diode/capacitor combination (D3-D6, C3 and C4), the flyback converter including a switch (Q3, Q4) used to switch the flyback transformer during operation to produce a flyback waveform that is rectified by the diode and results in a DC output at the capacitor (Figs. 3,4 and 8-10; col. 4, lines 40-67; col. 5, lines 10-20); and

an inverter ballast circuit (62) receiving the DC output and converting the DC output to an AC signal for operating the fluorescent lamp (Figs. 3, 4 and 8-10; col. 4, lines 40-67; col. 5, lines 10-20).

wherein the inverter ballast includes a self-oscillating resonant circuit including a pair of power transistors (Q3, Q4), and the flyback converter is further used to create a DC bias for use by the power transistors (Q1, Q2) (Figs. 4 and 8-10).

Allowable Subject Matter

4. Claims 6, 7 and 9-11 are allowed.

None of the prior art teaches the fluorescent lamp electronic ballast wherein the rectifier receives an AC input having a frequency that varies to frequencies exceeding 300 Hz and has an input capacitance of less than 0.5 microfarads.

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Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T Vu whose telephone number is (571) 272-1832. The examiner can normally be reached on M - F: 9 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.

Jimmy Vu

April 25, 2005



Don Wong
Supervisory Patent Examiner
Technology Center 2800